Complete Summary

GUIDELINE TITLE

Guideline for isolation precautions: preventing transmission of infectious agents in healthcare settings 2007. Transmission-based precautions.

BIBLIOGRAPHIC SOURCE(S)

Siegel JD, Rhinehart E, Jackson M, Chiarello L, Healthcare Infection Control Practices Advisory Committee. 2007 guideline for isolation precautions: preventing transmission of infectious agents in healthcare settings. Transmission-based precautions. Atlanta (GA): Centers for Disease Control and Prevention (CDC); 2007 Jun. 8 p.

GUIDELINE STATUS

This is the current release of the guideline.

This guideline updates a previous version: Centers for Disease Control and Prevention (CDC), Hospital Infection Control Practices Advisory Committee. Guidelines for isolation precautions in hospital infection control advisory committee. Atlanta (GA): Centers for Disease Control and Prevention (CDC); 1996 Jan 1. 38 p. (CDC prevention guidelines; no. 1/96). [97 references]

COMPLETE SUMMARY CONTENT

SCOPE

DISEASE/CONDITION(S)

Healthcare-associated infections

GUIDELINE CATEGORY

Prevention

CLINICAL SPECIALTY

Infectious Diseases
Nursing
Preventive Medicine

INTENDED USERS

Advanced Practice Nurses
Allied Health Personnel
Health Care Providers
Hospitals
Nurses
Physician Assistants
Physicians

GUIDELINE OBJECTIVE(S)

- To provide infection control recommendations for all components of the healthcare delivery system, including hospitals, long-term care facilities, ambulatory care, home care and hospice
- To reaffirm Standard Precautions as the foundation for preventing transmission during patient care in all healthcare settings
- To reaffirm the importance of implementing Transmission-Based Precautions based on the clinical presentation or syndrome and likely pathogens until the infectious etiology has been determined
- To provide epidemiologically sound and, whenever possible, evidence-based recommendations

TARGET POPULATION

Patients and healthcare personnel in all settings where healthcare is delivered

INTERVENTIONS AND PRACTICES CONSIDERED

Transmission-based precautions for infection control, including

1. Contact precautions, including consideration of the following:
    - Patient placement
    - Personal protective equipment (PPE), including gloves and gowns
    - Patient transport
    - Patient-care equipment and instruments/devices
    - Environmental measures
2. Droplet precautions, including consideration of the following:
    - Patient placement
    - PPE
    - Patient transport
3. Airborne precautions, including consideration of the following:
    - Patient placement

- Personnel restrictions
- PPE
- Patient transport
- Exposure management

MAJOR OUTCOMES CONSIDERED

Rates of transmissions and acquisition of healthcare-associated infection

METHODOLOGY

METHODS USED TO COLLECT/SELECT EVIDENCE

Searches of Electronic Databases

DESCRIPTION OF METHODS USED TO COLLECT/SELECT THE EVIDENCE

Med-line and Pub Med were used to search for relevant studies published in English, focusing on those published since 1996.

The quality of studies, consistency of results and correlation with results from randomized, controlled trials when available were considered during the literature review and assignment of evidence-based categories to the recommendations in this guideline.

NUMBER OF SOURCE DOCUMENTS

Not stated

METHODS USED TO ASSESS THE QUALITY AND STRENGTH OF THE EVIDENCE

Expert Consensus

RATING SCHEME FOR THE STRENGTH OF THE EVIDENCE

Not applicable

METHODS USED TO ANALYZE THE EVIDENCE

Systematic Review

DESCRIPTION OF THE METHODS USED TO ANALYZE THE EVIDENCE

Not stated

METHODS USED TO FORMULATE THE RECOMMENDATIONS

Not stated

RATING SCHEME FOR THE STRENGTH OF THE RECOMMENDATIONS

The recommendations are categorized on the basis of existing scientific data, theoretical rational, applicability, and when possible, economic impact, as follows:

Category IA. Strongly recommended for implementation and strongly supported by well-designed experimental, clinical, or epidemiologic studies.

Category IB. Strongly recommended for implementation and supported by some experimental, clinical, or epidemiologic studies and a strong theoretical rationale.

Category IC. Required for implementation, as mandated by federal and/or state regulation or standard.

Category II. Suggested for implementation and supported by suggestive clinical or epidemiologic studies or a theoretical rationale.

No recommendation; unresolved issue. Practices for which insufficient evidence or consensus regarding efficacy exists.

COST ANALYSIS

A formal cost analysis was not performed and published cost analyses were not reviewed.

METHOD OF GUIDELINE VALIDATION

Peer Review

DESCRIPTION OF METHOD OF GUIDELINE VALIDATION

Not stated

RECOMMENDATIONS

MAJOR RECOMMENDATIONS

Definitions for the strength of recommendation grading (IA-IC, II, and no recommendation) are provided at the end of the "Major Recommendations" field.

Transmission-based Precautions

V.A. General Principles

V.A.1. In addition to Standard Precautions, use Transmission-Based Precautions for patients with documented or suspected infection or colonization with highly transmissible or epidemiologically-important pathogens for which additional precautions are needed to prevent transmission (see Appendix A in the original guideline document) (Hall, 2000; Loeb et al., 2004; "Guidelines for preventing," 1994; CDC,

2003; Khan et al., 1999; Ford-Jones et al., 1990; Srinivasan et al., 2002). **Category IA**

V.A.2. Extend duration of Transmission-Based Precautions, (e.g., Droplet, Contact) for immunosuppressed patients with viral infections due to prolonged shedding of viral agents that may be transmitted to others (Hall et al., 1986; van Tol et al., 2005; Wood et al., 1988; Mori et al., 2002; Nichols et al., 2001; Elizaga et al., 2001; Oishi et al., 1991). **Category IA**

V.B. Contact Precautions

V.B.1. Use Contact Precautions as recommended in Appendix A in the original guideline document for patients with known or suspected infections or evidence of syndromes that represent an increased risk for contact transmission. For specific recommendations for use of Contact Precautions for colonization or infection with multidrug-resistant organisms (MDROs), go to the MDRO guideline (Healthcare Infection Control Practices Advisory Committee (HICPAC), 2006).

V.B.2. Patient placement

V.B.2.a. In *acute care hospitals*, place patients who require Contact Precautions in a single-patient room when available (Hall, 2000; Ostrowsky et al., 2001; Chang & Nelson, 2000; Byers et al., 2001; Ford-Jones et al., 1990; Boyce et al., 1994; Simor et al., 2002; Fierobe et al., 2001; Montesinos et al., 2003). (See also www.aia.org/aah_gd_hospcons.) **Category IB**

When single-patient rooms are in short supply, apply the following principles for making decisions on patient placement:

- Prioritize patients with conditions that may facilitate transmission (e.g., uncontained drainage, stool incontinence) for single-patient room placement. **Category II**
- Place together in the same room (cohort) patients who are infected or colonized with the same pathogen and are suitable roommates (Zawacki et al., 2004; Montecalvo et al., 1999; Jochimsen et al., 1999; Graham et al., 2002; Doherty et al., 1998; Hall et al., 1978; Grehn et al., 1990; Hotchkiss et al., 2005; Austin et al., 1999). **Category IB**
- If it becomes necessary to place a patient who requires Contact Precautions in a room with a patient who is not infected or colonized with the same infectious agent:
    - Avoid placing patients on Contact Precautions in the same room with patients who have conditions that may increase the risk of adverse outcome from infection or that may facilitate

transmission (e.g., those who are immunocompromised, have open wounds, or have anticipated prolonged lengths of stay). **Category II**

- Ensure that patients are physically separated (i.e., >3 feet apart) from each other. Draw the privacy curtain between beds to minimize opportunities for direct contact.) **Category II**
- Change protective attire and perform hand hygiene between contact with patients in the same room, regardless of whether one or both patients are on Contact Precautions (Tenorio et al., 2001; Olsen et al., 1993; Doebbeling et al., 1988; Patterson et al., 1991; Poutanen et al., 2005; Yap et al., 2004). **Category IB**

V.B.2.b. In *long-term care and other residential settings*, make decisions regarding patient placement on a case-by-case basis, balancing infection risks to other patients in the room, the presence of risk factors that increase the likelihood of transmission, and the potential adverse psychological impact on the infected or colonized patient (Catalano et al., 2003; Tarzi et al., 2001). **Category II**

V.B.2.c. In *ambulatory settings*, place patients who require Contact Precautions in an examination room or cubicle as soon as possible (Saiman, Siegel & Cystic Fibrosis Foundation, 2003). **Category II**

V.B.3. Use of personal protective equipment (PPE)

V.B.3.a. Gloves
Wear gloves whenever touching the patient's intact skin (Hall, 2000; Zachary et al., 2001; Boyce & Pittet, 2002; Gerding et al., 1994; Boyce et al., 1994) or surfaces and articles in close proximity to the patient (e.g., medical equipment, bed rails) (Bhalla et al., 2004; Duckro et al., 2005; Boyce et al., 1997; Boyce et al., 1994). Don gloves upon entry into the room or cubicle. (See also www.cdc.gov/ncidod/sars.) **Category IB**

V.B.3.b. Gowns

V.B.3.b.i. Wear a gown whenever anticipating that clothing will have direct contact with the patient or potentially contaminated environmental surfaces or equipment in close proximity to the patient. Don gown upon entry into the room or cubicle. Remove gown and observe hand hygiene before leaving the patient-care environment (Hall, 2000; Boyce et al., 1997; Boyce et al., 1995;

Boyce et al., 1994). (See also www.cdc.gov/ncidod/sars.) **Category IB**

V.B.3.ii. After gown removal, ensure that clothing and skin do not contact potentially contaminated environmental surfaces that could result in possible transfer of microorganism to other patients or environmental surfaces (Bhalla et al., 2004; Duckro et al., 2005). **Category II**

V.B.4. Patient transport

V.B.4.a. In *acute care hospitals and long-term care and other residential settings*, limit transport and movement of patients outside of the room to medically-necessary purposes. **Category II**

V.B.4.b. When transport or movement in any healthcare setting is necessary, ensure that infected or colonized areas of the patient's body are contained and covered. **Category II**

V.B.4.c. Remove and dispose of contaminated PPE and perform hand hygiene prior to transporting patients on Contact Precautions. **Category II**

V.B.4.d. Don clean PPE to handle the patient at the transport destination. **Category II**

V.B.5. Patient-care equipment and instruments/devices

V.B.5.a. Handle patient-care equipment and instruments/devices according to Standard Precautions ("Occupational exposure," 2001; Rutala & Weber, 2004). **Category IB/IC**

V.B.5.b. In *acute care hospitals and long-term care and other residential settings*, use disposable noncritical patient-care equipment (e.g., blood pressure cuffs) or implement patient-dedicated use of such equipment. If common use of equipment for multiple patients is unavoidable, clean and disinfect such equipment before use on another patient (Hall, 2000; Boyce et al., 1997; Chang & Nelson, 2000; Rutala & Weber, 2004; Boyce et al., 1994; Jernigan et al., 1998; Layton et al., 1993). **Category IB**

V.B.5.c. In *home care settings*

V.B.5.c.i. Limit the amount of non-disposable patient-care equipment brought into the home of patients on Contact Precautions. Whenever possible, leave patient-care equipment in the home until discharge from home care services. **Category II**

V.B.5.c.ii. If noncritical patient-care equipment (e.g., stethoscope) cannot remain in the home, clean and disinfect items before taking them from the home using a low- to intermediate-level disinfectant. Alternatively, place contaminated reusable items in a plastic bag for transport and subsequent cleaning and disinfection. **Category I**

V.B.5.d. In *ambulatory settings*, place contaminated reusable noncritical patient-care equipment in a plastic bag for transport to a soiled utility area for reprocessing. **Category II**

V.B.6. Environmental measures
Ensure that rooms of patients on Contact Precautions are prioritized for frequent cleaning and disinfection (e.g., at least daily) with a focus on frequently-touched surfaces (e.g., bed rails, overbed table, bedside commode, lavatory surfaces in patient bathrooms, doorknobs) and equipment in the immediate vicinity of the patient (Sehulster & Chinn, 2003; Hall, 2000; Boyce et al., 1997; Gerding et al., 1995; Boyce et al., 1994). **Category IB**

V.B.7. Discontinue Contact Precautions after signs and symptoms of the infection have resolved or according to pathogen-specific recommendations in Appendix A in the original guideline document. **Category IB**

V.C. Droplet Precautions

V.C.1. Use Droplet Precautions as recommended in Appendix A of the original guideline document for patients known or suspected to be infected with pathogens transmitted by respiratory droplets (i.e., large-particle droplets >5 micrometers in size) that are generated by a patient who is coughing, sneezing or talking (Tablan et al., 2004; Bridges, Kuehnert, & Hall, 2003; Christie et al., 1995; Gehanno et al., 1999; Feigin et al., 1982; Musher, 2003; Steinberg et al., 1969; Weaver, 1918; Weaver, 1919; Goldmann, 2001; Gilmore, Stuart, & Andrews, 2000). **Category IB**

V.C.2. Patient placement

V.C.2.a. In *acute care hospitals*, place patients who require Droplet Precautions in a single-patient room when available. **Category II**
When single-patient rooms are in short supply, apply the following principles for making decisions on patient placement:

- Prioritize patients who have excessive cough and sputum production for single-patient room placement **Category II**
- Place together in the same room (cohort) patients who are infected the same pathogen and are suitable roommates (Buffington et al., 1993; Tan et al., 2004). **Category IB**

- If it becomes necessary to place patients who require Droplet Precautions in a room with a patient who does not have the same infection:
    - Avoid placing patients on Droplet Precautions in the same room with patients who have conditions that may increase the risk of adverse outcome from infection or that may facilitate transmission (e.g., those who are immunocompromised, have or have anticipated prolonged lengths of stay). **Category II**
    - Ensure that patients are physically separated (i.e., >3 feet apart) from each other. Draw the privacy curtain between beds to minimize opportunities for close contact (Feigin et al., 1982; Dick et al., 1987; Drinka et al., 2003). **Category IB**
    - Change protective attire and perform hand hygiene between contact with patients in the same room, regardless of whether one patient or both patients are on Droplet Precautions (Olsen et al., 1993; Doebbeling et al., 1988; Maki et al., 1990; Patterson et al., 1991; Poutanen et al., 2005; Yap et al., 2004). **Category IB**

V.C.2.b. In *long-term care and other residential settings*, make decisions regarding patient placement on a case-by-case basis after considering infection risks to other patients in the room and available alternatives (Drinka et al., 2003). **Category II**

V.C.2.c. In *ambulatory settings*, place patients who require Droplet Precautions in an examination room or cubicle as soon as possible. Instruct patients to follow recommendations for Respiratory Hygiene/Cough Etiquette (Nafziger et al., 1997; Herwaldt, Smith, & Carter, 1998; Srinivasan et al., 2004). (See also www.cdc.gov/flu/professionals/infectioncontrol/resphygiene.htm.) **Category II**

V.C.3. Use of personal protective equipment

V.C.3.a. Don a mask upon entry into the patient room or cubicle (Tablan et al., 2004; Bridges, Kuehnert, & Hall, 2003; Christie, et al., 1995; Feigin et al., 1982; Musher, 2003; Seto et al., 2003; CDC, 1978; Gehanno et al., 1999). **Category IB**

V.C.3.b. No recommendation for routinely wearing eye protection (e.g., goggle or face shield), in addition to a mask, for close contact with patients who require Droplet Precautions. **Unresolved issue**

V.C.3.c. For patients with suspected or proven severe acute respiratory syndrome (SARS), avian influenza or pandemic influenza, refer to the following websites for the most current recommendations: www.cdc.gov/ncidod/sars/; www.cdc.gov/flu/avian/; www.pandemicflu.gov/.

V.C.4. Patient transport

V.C.4.a. In *acute care hospitals and long-term care and other residential settings*, limit transport and movement of patients outside of the room to medically-necessary purposes. **Category II**

V.C.4.b. If transport or movement in any healthcare setting is necessary, instruct patient to wear a mask and follow Respiratory Hygiene/Cough Etiquette (See www.cdc.gov/flu/professionals/infectioncontrol/resphygiene.htm). **Category IB**

V.C.4.c. No mask is required for persons transporting patients on Droplet Precautions. **Category II**

V.C.4.d. Discontinue Droplet Precautions after signs and symptoms have resolved or according to pathogen-specific recommendations in Appendix A in the original guideline document. **Category IB**

V.D Airborne Precautions

V.D.1. Use Airborne Precautions as recommended in Appendix A in the original guideline document for patients known or suspected to be infected with infectious agents transmitted person-to-person by the airborne route (e.g., *Mycobacterium tuberculosis* (Jensen et al., 2005), measles (Atkinson et al., 1991; Bloch et al., 1985; Ehresmann et al., 1995), chickenpox (LeClair et al., 1980; Anderson et al., 1985; Gustafson et al., 1982), disseminated herpes zoster (Hyams et al., 1984). **Category IA/IC**

V.D.2 Patient placement

V.D.2.a. In acute care hospitals and long-term care settings, place patients who require Airborne Precautions in an airborne infection isolation room (AIIR) that has been constructed in accordance with current guidelines (Sehulster & Chinn, 2003; Jensen et al., 2005; American Institute of Architects [AIA], 2006). **Category IA/IC**

V.D.2.a.i. Provide at least six (existing facility) or 12 (new construction/renovation) air changes per hour.

V.D.2.a.ii. Direct exhaust of air to the outside. If it is not possible to exhaust air from an AIIR directly to the outside, the air may be returned to the air-handling system or adjacent spaces if all air is directed through high-efficiency particulate air (HEPA) filters.

V.D.2.a.iii. Whenever an AIIR is in use for a patient on Airborne Precautions, monitor air pressure daily with visual indicators (e.g., smoke tubes, flutter strips),

regardless of the presence of differential pressure sensing devices (e.g., manometers) (Sehulster & Chinn, 2003; Jensen et al., 2005; Pavelchak et al., 2000; Rice, Streifel, & Vesley, 2001).

V.D.2.a.iv. Keep the AIIR door closed when not required for entry and exit.

V.D.2.b. When an AIIR is not available, transfer the patient to a facility that has an available AIIR (Jensen et al., 2005). **Category II**

V.D.2.c. In the event of an outbreak or exposure involving large numbers of patients who require Airborne Precautions:

- Consult infection control professionals before patient placement to determine the safety of alternative room that do not meet engineering requirements for an AIIR.
- Place together (cohort) patients who are presumed to have the same infection(based on clinical presentation and diagnosis when known) in areas of the facility that are away from other patients, especially patients who are at increased risk for infection (e.g., immunocompromised patients).
- Use temporary portable solutions (e.g., exhaust fan) to create a negative pressure environment in the converted area of the facility. Discharge air directly to the outside, away from people and air intakes, or direct all the air through HEPA filters before it is introduced to other air spaces (Jensen et al., 2005). **Category II**

V.D.2.d. In *ambulatory settings*:

V.D.2.d.i. Develop systems (e.g., triage, signage) to identify patients with known or suspected infections that require Airborne Precautions upon entry into ambulatory settings (Srinivasan et al., 2004; Jensen et al., 2005; Atkinson et al., 1991; Haley et al., 1989). (See also www.cdc.gov/ncidod/sars.) **Category IA**

V.D.2.d.ii. Place the patient in an AIIR as soon as possible. If an AIIR is not available, place a surgical mask on the patient and place him/her in an examination room. Once the patient leaves, the room should remain vacant for the appropriate time, generally one hour, to allow for a full exchange of air

(Sehulster & Chinn, 2003; Jensen et al., 2005; Bloch et al., 1985). **Category IB/IC**

V.D.2.d.iii. Instruct patients with a known or suspected airborne infection to wear a surgical mask and observe Respiratory Hygiene/Cough Etiquette. Once in an AIIR, the mask may be removed; the mask should remain on if the patient is not in an AIIR (Jensen et al., 2005; Downie et al., 1965; Riley, 1974; Thomas, 1961). **Category IB/IC**

V.D.3. Personnel restrictions|

Restrict susceptible healthcare personnel from entering the rooms of patients known or suspected to have measles (rubeola), varicella (chickenpox), disseminated zoster, or smallpox if other immune healthcare personnel are available (Bolyard et al., 1998; Saiman et al., 2001). **Category IB**

V.D.4. Use of PPE

V.D.4.a. Wear a fit-tested National Institute for Occupational Safety and Health (NIOSH)-approved N95 or higher level respirator for respiratory protection when entering the room or home of a patient when the following diseases are suspected or confirmed:

- Infectious pulmonary or laryngeal tuberculosis or when infectious tuberculosis skin lesions are present and procedures that would aerosolize viable organisms (e.g., irrigation, incision and drainage, whirlpool treatments) are performed (Jensen et al., 2005; Hutton et al., 1990; Frampton, 1992). **Category IB**
- Smallpox (vaccinated and unvaccinated). Respiratory protection is recommended for all healthcare personnel, including those with a documented "take" after smallpox vaccination due to the risk of a genetically engineered virus against which the vaccine may not provide protection, or of exposure to a very large viral load (e.g., from high-risk aerosol-generating procedures, immunocompromised patients, hemorrhagic or flat smallpox (Fenner et al., 1988; Gelfand & Posch, 1971). **Category II**

V.D.4.b No recommendation is made regarding the use of PPE by healthcare personnel who are presumed to be immune to measles (rubeola) or varicella-zoster based on history of disease, vaccine, or serologic testing when caring for an individual with known or suspected measles, chickenpox or disseminated zoster, due to difficulties in establishing definite immunity (Ammari,

Bell, & Hodinka, 1993; Behrman et al., 2003).
Unresolved issue

V.D.4.c. No recommendation is made regarding the type of personal protective equipment (i.e., surgical mask or respiratory protection with a N95 or higher respirator) to be worn by susceptible healthcare personnel who must have contact with patients with known or suspected measles, chickenpox or disseminated herpes zoster.
Unresolved issue

V.D.5. Patient transport

V.D.5.a. In acute care hospitals and long-term care and other residential settings, limit transport and movement of patients outside of the room to medically-necessary purposes. **Category II**

V.D.5.b. If transport or movement outside an AIIR is necessary, instruct patients to wear a surgical mask, if possible, and observe Respiratory Hygiene/Cough Etiquette (Jensen et al., 2005). **Category II**

V.D.5.c. For patients with skin lesions associated with varicella or smallpox or draining skin lesions caused by *M. tuberculosis*, cover the affected areas to prevent aerosolization or contact with the infectious agent in skin lesions (Fenner et al., 1988; Hutton et al., 1990; Frampton, 1992; Josephson & Gombert, 1988; Brodkin, 1963; Suzuki et al., 2004). **Category IB**

V.D.5.d. Healthcare personnel transporting patients who are on Airborne Precautions do not need to wear a mask or respirator during transport if the patient is wearing a mask and infectious skin lesions are covered. **Category II**

V.D.6. Exposure management
Immunize or provide the appropriate immune globulin to susceptible persons as soon as possible following unprotected contact (i.e., exposed) to a patient with measles, varicella or smallpox: **Category IA**

- Administer measles vaccine to exposed susceptible persons within 72 hours after the exposure or administer immune globulin within six days of the exposure event for high-risk persons in whom vaccine is contraindicated (Bolyard et al., 1998; Ruuskanen, Salmi, & Halonen, 1978; Berkovich & Starr, 1963; Watson et al., 1998; Kroger et al., 2006).
- Administer varicella vaccine to exposed susceptible persons within 120 hours after the exposure or administer varicella immune globulin (VZIG or alternative product), when available, within 96 hours for high-risk persons in whom vaccine is contraindicated (e.g., immunocompromised patients, pregnant women, newborns whose mother's varicella onset was <5 days before or within 48 hours after delivery) ("Prevention of

varicella," 1999; Kroger et al., 2006; Watson et al., 2000; Salzman & Garcia, 1998).
- Administer smallpox vaccine to exposed susceptible persons within 4 days after exposure (Fenner et al., 1988; CDC, 2001; Fulginiti et al., 2003; Dixon, 1948).

V.D.7. Discontinue Airborne Precautions according to pathogen-specific recommendations in Appendix A in the original guideline document. **Category IB**

V.D.8. Consult CDC's "Guidelines for Preventing the Transmission of Mycobacterium tuberculosis in Health-Care Settings, 2005" (Jensen et al., 2005) and the "Guideline for Environmental Infection Control in Health-Care Facilities" (Sehulster & Chinn, 2003) for additional guidance on environment strategies for preventing transmission of tuberculosis in healthcare settings. The environmental recommendations in these guidelines may be applied to patients with other infections that require Airborne Precautions.

Definitions:

Strength of the Recommendations

The recommendations are categorized on the basis of existing scientific data, theoretical rational, applicability, and when possible, economic impact, as follows:

Category IA. Strongly recommended for implementation and strongly supported by well-designed experimental, clinical, or epidemiologic studies.

Category IB. Strongly recommended for implementation and supported by some experimental, clinical, or epidemiologic studies and a strong theoretical rationale.

Category IC. Required for implementation, as mandated by federal and/or state regulation or standard.

Category II. Suggested for implementation and supported by suggestive clinical or epidemiologic studies or a theoretical rationale.

No recommendation; unresolved issue. Practices for which insufficient evidence or consensus regarding efficacy exists.

CLINICAL ALGORITHM(S)

None provided

EVIDENCE SUPPORTING THE RECOMMENDATIONS

REFERENCES SUPPORTING THE RECOMMENDATIONS

References open in a new window

TYPE OF EVIDENCE SUPPORTING THE RECOMMENDATIONS

The type of evidence is identified and graded for each recommendation (see "Major Recommendations").

BENEFITS/HARMS OF IMPLEMENTING THE GUIDELINE RECOMMENDATIONS

POTENTIAL BENEFITS

Appropriate use of transmission-based precautions to prevent the transmission of infectious agents in healthcare settings

POTENTIAL HARMS

When Transmission-Based Precautions are indicated, efforts must be made to counteract possible adverse effects on patients (i.e., anxiety, depression and other mood disturbances, perceptions of stigma, reduced contact with clinical staff, and increases in preventable adverse events in order to improve acceptance by the patients and adherence by healthcare workers.

CONTRAINDICATIONS

CONTRAINDICATIONS

Varicella vaccine is contraindicated in immunocompromised patients, pregnant women, and newborns whose mother's varicella onset was <5 days before or within 48 hours after delivery.

QUALIFYING STATEMENTS

QUALIFYING STATEMENTS

Much of the evidence cited for preventing transmission of infectious agents in healthcare settings is derived from studies that used "quasi-experimental designs", also referred to as nonrandomized, pre- post-intervention study designs. Although these types of studies can provide valuable information regarding the effectiveness of various interventions, several factors decrease the certainty of attributing improved outcome to a specific intervention. These include difficulties in controlling for important confounding variables; the use of multiple interventions during an outbreak; and results that are explained by the statistical principle of regression to the mean, (e.g., improvement over time without any intervention). Observational studies remain relevant and have been used to evaluate infection control interventions.

IMPLEMENTATION OF THE GUIDELINE

DESCRIPTION OF IMPLEMENTATION STRATEGY

An implementation strategy was not provided.

INSTITUTE OF MEDICINE (IOM) NATIONAL HEALTHCARE QUALITY REPORT CATEGORIES

IOM CARE NEED

Staying Healthy

IOM DOMAIN

Effectiveness
Safety

IDENTIFYING INFORMATION AND AVAILABILITY

BIBLIOGRAPHIC SOURCE(S)

Siegel JD, Rhinehart E, Jackson M, Chiarello L, Healthcare Infection Control Practices Advisory Committee. 2007 guideline for isolation precautions: preventing transmission of infectious agents in healthcare settings. Transmission-based precautions. Atlanta (GA): Centers for Disease Control and Prevention (CDC); 2007 Jun. 8 p.

ADAPTATION

Not applicable: The guideline was not adapted from another source.

DATE RELEASED

1996 Jan (revised 2007 Jun)

GUIDELINE DEVELOPER(S)

Centers for Disease Control and Prevention - Federal Government Agency [U.S.]

SOURCE(S) OF FUNDING

United States Government

GUIDELINE COMMITTEE

Healthcare Infection Control Practices Advisory Committee (HICPAC)

COMPOSITION OF GROUP THAT AUTHORED THE GUIDELINE

Patrick J. Brennan, MD (*Chair*), Professor of Medicine, Division of Infectious Diseases, University of Pennsylvania Medical School; Michael Bell, MD (*Executive Secretary*), Division of Healthcare Quality Promotion, National Center for Infectious Diseases, Centers for Disease Control and Prevention; Vicki L. Brinsko, RN, BA, Infection Control Coordinator, Vanderbilt University Medical Center; E.

Patchen Dellinger, MD, Professor of Surgery, University of Washington School of Medicine; Jeffrey Engel, MD, Head General Communicable Disease Control Branch, North Carolina State Epidemiologist; Steven M. Gordon, MD, Chairman, Department of Infectious Diseases, Hospital Epidemiologist, Cleveland Clinic Foundation, Department of Infectious Disease; Lizzie J. Harrell, PhD, D(ABMM), Research Professor of Molecular Genetics, Microbiology and Pathology, Associate Director, Clinical Microbiology, Duke University Medical Center; Carol O'Boyle, PhD, RN, Assistant Professor, School of Nursing, University of Minnesota; David Alexander Pegues, MD, Division of Infectious Diseases, David Geffen School of Medicine at UCLA; Dennis M. Perrotta, PhD., CIC, Adjunct Associate Professor of Epidemiology, University of Texas School of Public Health, Texas A&M University School of Rural Public Health; Harriett M. Pitt, MS, CIC, RN, Director, Epidemiology, Long Beach Memorial Medical Center; Keith M. Ramsey, MD, Professor of Medicine Medical Director of Infection Control, The Brody School of Medicine at East Carolina University; Nalini Singh, MD, MPH, Professor of Pediatrics, Epidemiology and International Health, The George Washington University Children's National Medical Center; Kurt Brown Stevenson, MD, MPH, Division of Infectious Diseases, Department of Internal Medicine, The Ohio State University Medical Center; Philip W. Smith, MD, Chief, Section of Infectious Diseases, Department of Internal Medicine, University of Nebraska Medical Center

FINANCIAL DISCLOSURES/CONFLICTS OF INTEREST

Not stated

GUIDELINE STATUS

This is the current release of the guideline.

This guideline updates a previous version: Centers for Disease Control and Prevention (CDC), Hospital Infection Control Practices Advisory Committee. Guidelines for isolation precautions in hospital infection control advisory committee. Atlanta (GA): Centers for Disease Control and Prevention (CDC); 1996 Jan 1. 38 p. (CDC prevention guidelines; no. 1/96). [97 references]

GUIDELINE AVAILABILITY

Electronic copies: Available in Portable Document Format (PDF) from Centers for Disease Control and Prevention (CDC) Web site.

AVAILABILITY OF COMPANION DOCUMENTS

None available

PATIENT RESOURCES

None available

NGC STATUS

This summary was completed by ECRI on April 25, 1999. The information was verified by the guideline developer on November 15, 1999. This NGC summary was updated by ECRI Institute on September 5, 2007.

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